

The aurora observed on the evening of February 26 at Washington, D. C., was reported to have been accompanied by a severe disturbance of the telephone lines, but a special report from Mr. Samuel M. Bryan, President of the Chesapeake and Potomac Telephone Company, states that this disturbance was due to the telephone lines being rendered useless by the grounding of a heavy electric-light circuit, so as to seriously impair and in some cases totally destroy the efficiency of the underground system.

CANADIAN DATA—THUNDERSTORMS AND AURORAS.

No thunderstorms were reported.

Auroras were reported as follows: 1st, Minnedosa, Man., and Prince Albert, Sask. 2d, Quebec, Que., Minnedosa, Man., and Prince Albert, Sask. 3d, Minnedosa, Man. 7th, Prince Albert, Sask. 8th, Winnipeg, Man., and Prince Albert, Sask. 13th, Winnipeg and Minnedosa, Man., and Medicine Hat, Assin. 14th, Grand Manan and St. Andrews, N. B., Charlottetown, P. E. I., Father Point, Que., Toronto, White River,

Kingston, Saugeen, and Port Arthur, Ont., Winnipeg and Minnedosa, Man., Medicine Hat and Qu'Appelle, Assin., and Battleford, Sask. 15th, Halifax and Yarmouth, N. S., Grand Manan and St. Andrews, N. B., Charlottetown, P. E. I., Father Point, Que., Toronto, White River, Kingston, Port Stanley, Saugeen, Parry Sound, and Port Arthur, Ont., Winnipeg, Man., and Battleford, Sask. 16th, Halifax, N. S., Medicine Hat, Assin., and Battleford, Sask. 17th, Father Point, Que., and Kingston, Ont. 18th, Prince Albert, Sask. 20th, Father Point, Que., and Winnipeg, Man. 23d, Yarmouth, N. S., St. Andrews, N. B., Father Point and Quebec, Que., Toronto, White River, and Kingston, Ont., Winnipeg, Man., Medicine Hat, Assin., Banff, Alberta, and Prince Albert, Sask. 24th, Grand Manan, N. B., Medicine Hat and Swift Current, Assin., Banff, Alberta, Prince Albert and Battleford, Sask. 25th, Minnedosa, Man. 27th, Winnipeg, Man., and Esquimalt, B. C. 28th, Winnipeg, Man., and Medicine Hat and Swift Current, Assin.

METEOROLOGY AND MAGNETISM.

For general remarks relative to this subject see page 7 of the REVIEW for January, 1895.

The comparison of the air temperature with magnetic horizontal force is shown in detail on Chart V, and the special features of the February curves are as follows:

The temperatures of the Calgary, Williston, and Sioux City groups each need the correction—1 for slope. Washington is corrected for slope by +1; San Antonio is compensated for

amplitude by the factor $\frac{1}{2}$, and for slope by +2. The mean temperatures are reduced to a zero datum line by -8, and the mean magnetic force by +23. The new solar magnetic period begins February 13.12.

After about a full year has been exhibited in this comparison of temperature and magnetic force variations, it will be proper to make some comments on the relations of the two systems of forces.

INLAND NAVIGATION.

The extreme and average stages of water in the rivers during the current month are given in Table VII. The only river that approached the danger line was the Sacramento, which was rather high during the first part of the month.

The thickness of ice in rivers and harbors is given for each Monday of the winter months in the Weekly Bulletin of Depth of Snow on Ground. On Monday, February 25, the reports indicated the following conditions: In the Missouri River the thickness of ice varied from 33 inches at Williston to 16 inches at the mouth; in the Mississippi River, from 26 at St. Paul to 0 at Cairo; in the Ohio, from 6 at Pittsburg to 3 at

Louisville; in the Hudson, from 18 at Albany to 0 at New York. In the Lake region the reports were: Duluth, 26.5; Marquette, 17.5; Green Bay, 18; Grand Haven, 15; Detroit, 15; Toledo, 24; Sandusky, 12; Cleveland, 14; Erie, 18; Rochester, 22; Oswego, 17.5. On the afternoon of the 25th the ice was reported as breaking up and moving at Miles City, Mont., Hermann, Mo., and North Bend, Ind.; and in a few days after this much ice in the rivers had broken up.

On February 5, at Nyack, the Hudson River, which is three and a half miles wide at this place, was frozen entirely over for the first time this season.

STATE WEATHER SERVICES.

The following extracts relating to general weather conditions are taken from the reviews published by the respective State services:

Alabama.—The month was remarkable for the extreme cold periods, especially during the first week. The temperature at many stations was several degrees lower than ever recorded at that season. The average monthly temperature for the whole State was 12° below the normal. The snowfall was also heavier than ever known in this section during this month, the monthly fall averaging from a few inches in the southern portions to a foot deep in northern portions, where it was sufficient, on the 14th and 15th, to impede railroad traffic. The Weather Bureau's cold-wave warning of the 6th, which was very widely distributed, did much to avert damage to early trucking crops, but in southern portions of the State, where such crops were further advanced, a great deal of damage was done, and most of such in that section had to be replanted. Fortunately the cold has retarded development of sap in fruit trees, and the prospect for a bountiful fruit crop is now very favorable.

Arizona.—Temperature for the month nearly normal. Rainfall, for an average of 42 stations, about a quarter of the normal for February; 13 stations reported no precipitation.

Arkansas.—The monthly mean temperature for February was 13.2° below the normal, and was the lowest of which there is a record. From the 1st to the 17th the temperature was constantly 13° or more below the normal, the daily average deficiency for these days being 21.3°. The lowest temperature occurred on the 7th, which was the coldest day generally throughout the State. On this date the minimum temperature ranged from 4° above zero in the extreme southern part of the State to 17° below at Pochahontas. The average precipitation for the State was 0.73 inch, which is 3.61 inches less than the normal amount and the lowest average ever recorded for the State during February. A large part of it was in the form of snow, the total fall ranging from a trace in the extreme southern part to 7.00 inches at Hot Springs. The snow that fell on the morning of the 7th was accompanied by a fine black sand or drift soil, which must have been brought from some distance, as the ground was covered with snow when this fell. Reports of this snow dust were received from Silver Springs, Benton Co.; Keesees Ferry, Marion Co.; Ozark, Franklin Co., and Fayetteville, Washington Co. (See January Review, 1895, page 15).

California.—As compared with the normal temperature for this month, an excess of from 1° to 4° was reported from all portions of the State, while the precipitation was deficient. The excess of temperature and deficiency of rainfall have produced a wonderful effect